

**NATURAL RESOURCES CONSERVATION SERVICE**  
**CONSERVATION PRACTICE SPECIFICATION**  
**RESIDUE MANAGEMENT, SEASONAL**  
**(acre)**  
**CODE 344**

**SCOPE**

This document establishes the technical details, workmanship, and quality and extent of materials required to install the practice in accordance with the Conservation Practice Standard. The information shall be considered when preparing site-specific specifications for the practice.

The site-specific specifications for installing, operating, and maintaining the practice on a specific field or treatment unit shall be documented via the NRCS Hawaii Jobsheet for this practice and given to the client. Other documents such as practice worksheets, maps, drawings, and narrative statements in the conservation plan may be used to plan or design the practice and to prepare the site-specific specifications.

**GENERAL**

Use approved methods to estimate residue levels. Percent ground cover is dependent on both the amounts of crop residue and its distribution. Residues spread evenly across the rows produce the highest percentages of ground cover.

**MANAGEMENT**

In rainfall erosion areas, crops shall be managed to maintain adequate surface residues during the critical erosion periods. Residue cover will be maintained at no less than 30 percent. In wind erosion areas, residues during the critical wind erosion periods shall be no less than 1000 pounds per acre of flat small grain residues equivalent on the surface. This is approximately equal to 4,000 pounds of sugarcane residue and 3,000 pounds of pineapple residue.

Residues subject to blowing or water flotation shall be anchored into the soil surface by disking or other mechanical operations. Residue shall be anchored with the least possible soil disturbance.

Utilize moisture and tillage on irrigated land in windy areas just prior to planting to minimize erosion.

Tree and vine crops shall be managed to maintain shreddable prunings and leaf residue on the soil surface during the critical erosion periods.

Spread all crop residues, including orchard, coffee and vineyard prunings, uniformly and do not burn or remove residues except for large limbs. Shred or chop coarse residues as necessary for field management.

## WEED CONTROL

Weeds should be controlled with herbicides, sweeps, blades or by mowing to help maintain maximum residues on the soil surface with a minimum of surface disturbance.

Herbicide users should be cautioned as follows: If herbicides are handled or applied improperly or if unused portions are not disposed of safely, they may be injurious to humans, domestic animals, desirable plants, fish or other wildlife and they may contaminate nearby crops and other vegetation. Follow the directions and read all precautions on the container label.

Cooperators should be aware of and adhere to the provisions of state and federal laws and regulations concerning the use of agricultural chemicals.

Herbicides may be applied using various methods such as broadcast, spot spraying and wick applications. Use appropriate chemicals according to manufacturers recommendations for the target weeds and application methods.

The **Pest Management** (595) standard and specification must be used when working with the land user on a chemical weed control program.

## FERTILITY

Undecomposed residues in the soil can tie up nitrogen. Unless the residue contains at least 1.5 percent nitrogen, such as a legume cover or green manure crop, the decomposing organisms will utilize soil nitrogen. Soil organisms will tie up about 25 to 30 pounds of nitrogen in decomposing a ton of carbon-rich crop residue. Up to 30 pounds of nitrogen per ton of air dry residue may be required when residues are incorporated into the soil. This is especially important if another crop will be planted immediately. The **Nutrient Management** (590) standard and specification must be used when working with the land user on a fertilizer program.

## RESIDUE ENHANCEMENT PRACTICES

A cover and green manure crop may be planted when compatible with the management system being applied. Refer to practice standard 340 - **Cover Crop**. Incorporation will be during seedbed preparation.

Fertilize in accordance with the results of periodic soil tests. High yields will produce the most crop residue for a particular crop and crop variety.

Plant crops in narrow rows with a high plant population (closely spaced), but not above the optimum density.